

Notice of Allowability

Application No.

09/830,393

Examiner

sang nguyen

Applicant(s)

NUGENT ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 7/22/04.
2. ☒ The allowed claim(s) is/are 1-24 and 27-107 which have been renumbered as indicate 1-105.
3. ☒ The drawings filed on 25 April 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

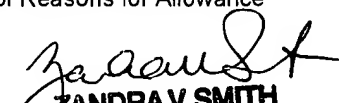
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 7/22/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.


ZANDRA V. SMITH
PRIMARY EXAMINER

DETAILED ACTION

Response to Amendment

The present Office action is made in response to the Amendment filed on 7/22/04 have been entered. It is noted that the present application contains claims 1-24 and 27-107 and claims 25-26 and 108-109 have been canceled by the amendment filed on 7/22/04.

Allowable Subject Matter

Claims 1-24 and 27-107 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

As independent claims 1 and 27, the prior art of record, taken alone or in combination, fails discloses or render obvious method and apparatus for quantitative determination of the phase of a radiation wave field comprising all the specific elements with the specific combination including of steps transforming the measure of rate of change of intensity to produce a first integral transform representation and applying to the first integral transform representation a first filter corresponding to the inversion of a first differential operator reflected in the measure of rate of change of intensity to produce a first modified integral transform representation, applying an inverse of the first integral transform to the first modified integral transform representation to produce an untransformed representation, applying a correction based on the measured of intensity over the selected surface to the untransformed representation, and transforming the corrected untransformed representation to produce a second integral transform

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representation and applying to the second integral transform representation a second filter corresponding to the inversion of a second differential operator reflected in the corrected untransformed representation to produce a second modified integral transform representation in combination with the rest of the limitation of claims 1 and 27.

As independent claims 51 and 65, the prior art of record, taken alone or in combination, fails discloses or render obvious method and apparatus for imaging an object comprising all the specific elements with the specific combination including of steps transforming the measure of rate of change of intensity to produce a first integral transform representation and applying to the first integral transform representation a first filter corresponding to the inversion of a first differential operator reflected in the measure of rate of change of intensity to produce a first modified integral transform representation, applying an inverse of the first integral transform to the first modified integral transform representation to produce an untransformed representation, applying a correction based on the measured of intensity over the selected surface to the untransformed representation, and transforming the corrected untransformed representation to produce a second integral transform representation and applying to the second integral transform representation a second filter corresponding to the inversion of a second differential operator reflected in the corrected untransformed representation to produce a second modified integral transform representation in combination with the rest of the limitation of claims 51 and 65.

As independent claims 80 and 94, the prior art of record, taken alone or in combination, fails discloses or render obvious method and apparatus for phase

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amplitude imaging of an object comprising all the specific elements with the specific combination including of steps transforming the measure of rate of change of intensity to produce a first integral transform representation and applying to the first integral transform representation a first filter corresponding to the inversion of a first differential operator reflected in the measure of rate of change of intensity to produce a first modified integral transform representation, applying an inverse of the first integral transform to the first modified integral transform representation to produce an untransformed representation, applying a correction based on the measured of intensity over the selected surface to the untransformed representation, and transforming the corrected untransformed representation to produce a second integral transform representation and applying to the second integral transform representation a second filter corresponding to the inversion of a second differential operator reflected in the corrected untransformed representation to produce a second modified integral transform representation in combination with the rest of the limitation of claims 80 and 94.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sang Nguyen whose telephone number is (571) 272-2425. The examiner can normally be reached on 9:30 am to 7:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on (571) 272-2800 ext 77. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sang Nguyen/SN

August 1, 2004



Gregory J. Toatley, Jr.
Supervisory Patent Examiner
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